

Engineering Analysis for the Alabama Coastal Conference

ERDC Dredging Operations Technical Support Program (DOTS)

U.S. ARMY CORPS OF ENGINEERS

BUILDING STRONG®

DOTS ID: DOTS-19-R08

Response Summary:

USACE Mobile District Engineering Division is supporting the State of Alabama's Department of Conservation and Natural Resources in its implementation of the Alabama Coastal Comprehensive Plan. The State used a stakeholder-driven process to identify local priorities for planning for the future of the coast. Mobile District is tying local priorities to physical conditions and relevant capabilities, especially with respect to flood hazards.

The District is creating a tool to co-locate the services that are critical for flood resilience in terms of the public's values and assesses the performative quality of those services. Co-locating a large set of assets will help identify areas of relative strength and weakness in order to prioritize the allocation of resources to improve resilience. The tool will be geospatial, such that locations are assessed relative to others in the study area and users will be able to readily hone in on locations that are "hotspots", where attention should be focused generally and drill down into the assessment to gain insight into the drivers of strengths and weaknesses.

The methodology utilized by Mobile District is inspired by an ERDC-developed resilience assessment framework called the Resilience Matrix, which advocates that assessment consider physical and non-physical capacities necessary for preparing, absorbing, recovering, and adapting to hazards. The DOTS program funded technical assistance by the Risk and Decision Science team to Mobile District Engineering Division as they elaborated the Resilience Matrix for the Mobile and Baldwin County context. The team provided feedback about metrics of resilience and data aggregation.

Period of Performance:

January 2019 to June 2019

Benefits of the Response to the USACE Dredging/Navigation Program:

The results of the assessment of Mobile and Baldwin counties, in combinations with the Alabama Coastal Comprehensive Plan, will be used to inform the Governor of the State of Alabama and possibly other Government and non-Government organizations on the types and locations of measures that could be implemented to enhance community resilience. Contingent on review, the tools may be employed as part of the South Atlantic Coastal Study.

Deliverable:

A geospatial tool is being developed for visualizing the assessment results. Users will be able to see where strengths and weaknesses are co-located and are in need of attention. The Response has provided technical assistance during its creation.



Providing environmental and engineering technical support to the U.S. Army Corps of Engineers Operations and Maintenance navigation and dredging missions